

### **REMARKS**

Claims 1-23 are currently pending in the subject application, and are presently under consideration. Claims 1-23 are rejected. Claims 1, 10, and 19-22 have been amended to substantially correct rejections in view of 35 U.S.C. §112, second paragraph, to present the rejected claims in better form for consideration on Appeal, as set forth in 37 CFR 1.116(b)(2). Therefore, entry of the amendments to claims 1, 10, and 19-22 is respectfully requested. Favorable reconsideration of the application is requested in view of the amendments and comments herein.

#### **I. Rejection of Claims 1-22 Under 35 U.S.C. §112, Second Paragraph**

Claims 1-22 stand rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential elements, such as omission amounting to a gap between the elements. Specifically, in the Office Action dated March 26, 2010 (hereinafter "Office Action"), the Examiner asserts that claim 1 fails to set forth some kind of structure which produces images, and that an imager must set forth structure that generates a representation of medical image data as a map (Office Action, pages 2 and 7). Claim 1 has been amended to recite electronic circuitry configured to generate image data associated with the target area of the patient based on the collected radiation (Present Application, Paragraph 40). Thus, claim 1 now recites that the collected radiation corresponds to a image data. However, Representative for Applicant respectfully maintains that neither the Specification nor any statements on record indicate that the display of an image is essential to the invention. Specifically, image data can be used for a variety of purposes which include, but are not exclusive to, generating an image.

In addition, claim 1 has been amended to recite that the collected radiation is emitted from the target area of the patient. Specifically, the medical imager that is recited in claim 1 is recited as a passive medical imager, such that no radiation is directed onto the patient by the imager (Present Application, Paragraph 40). Therefore, in contrast to the Examiner's assertion, the imaging system that is the subject of the Present Application, and particularly claim 1, does not require a radiation source that is alleged to be required to render the system an "imager"

(Office Action, page 2). For these reasons, Representative for Applicant respectfully submits that claim 1 satisfies 35 U.S.C. §112, second paragraph. Withdrawal of the rejection of claims 1-22 in view of 35 U.S.C. §112, second paragraph, is respectfully requested.

## **II. Rejection of Claims 4, 6 and 9-12 Under 35 U.S.C. §112, Second Paragraph**

Claims 4, 6, and 9-12 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Withdrawal of this rejection is respectfully requested for at least the following reasons.

The Examiner asserts that claim 4 recites "the collected radiation having a Gaussian sensitivity profile" without sufficient antecedent basis, and that claim 6 recites "the collected radiation having a Bessel sensitivity profile" without sufficient antecedent basis (Office Action, page 2). Representative for Applicant respectfully disagrees. Claim 1 recites both "a collector configured to *collect the radiation*," and "means for isolation in the collection path of *the collected radiation*," (emphasis added). Representative for Applicant respectfully submits that these phrases of claim 1, from which claims 4 and 6 depend, provide clear and explicit antecedent basis for the phrases "the collected radiation having a Gaussian sensitivity profile" and "the collected radiation having a Bessel sensitivity profile" recited in claims 4 and 6, respectively. Therefore, withdrawal of the rejection of claims 4 and 6 in view of 35 U.S.C. §112, second paragraph, is respectfully requested.

The Examiner also contends that it is unclear what is being set forth by the recitation "sweep the collection path through 360 degrees," as recited in claim 9. Claim 9 has been amended to recite that the means for scanning is operable to be repeatedly rotated through 360° in the collection path. Thus, the language of claim 9 is now much more clear. Withdrawal of the rejection of claim 9 in view of 35 U.S.C. §112, second paragraph, is respectfully requested.

The Examiner further contends that claims 10-12 and 22 further limit the "means for scanning" set forth in claim 1, and would thus preclude application of 35 U.S.C. §112, sixth paragraph. Representative for Applicant respectfully submits that there is no such rule or law in

the MPEP that requires all dependent claims of a "means-plus-function" claim to further invoke 35 U.S.C. §112, sixth paragraph, and thus necessitating amendment of claim 1 to remove the "means-plus-function" language or amendment to claims 10 and 11 to add "means-plus-function" language. Specifically, the MPEP states the following:

It is necessary to decide on an element by element basis whether 35 U.S.C. §112, sixth paragraph, applies. Not all terms in a means-plus-function or step-plus-function clause are limited to what is disclosed in the written description and equivalents thereof, since 35 U.S.C. §112, sixth paragraph, applies only to the interpretation of the means or step that performs the recited function. See, e.g., *IMS Technology Inc. v. Haas Automation Inc.*, 206 F.3d 1422, 54 USPQ2d 1129 (Fed. Cir. 2000) (the term "data block" in the phrase "means to sequentially display data block inquiries" was not the means that caused the sequential display, and its meaning was not limited to the disclosed embodiment and equivalents thereof.). Each claim must be *independently reviewed* to determine the applicability of 35 U.S.C. §112, sixth paragraph, even where the application contains substantially similar process and apparatus claims. *O.I. Corp.*, 115 F.3d at 1583-1584, 42 USPQ2d at 1782 ("We understand that the steps in the method claims are essentially in the same language as the limitations in the apparatus claim, albeit without the 'means for' qualification. Each claim must be *independently reviewed* in order to determine if it is subject to the requirements of section §112, ¶ 6. Interpretation of claims would be confusing indeed if claims that are not means- or step- plus function were to be interpreted as if they were, only because they use language similar to that used in other claims that are subject to this provision."). See MPEP, 2181 (emphasis added).

The requirement that claims be independently reviewed for applicability of 35 U.S.C. §112, sixth paragraph, thus dictates that while claim 1 can invoke 35 U.S.C. §112, sixth paragraph, dependent claims 10 and 11 need not merely because they limit the structure of the "means for scanning." This rationale is similarly applicable to claim 22 based on the limitation to the structure of the "means for isolating." For this reason, claims 10-12 and 22 satisfy 35 U.S.C. §112, second paragraph. Accordingly, withdrawal of this rejection is respectfully requested.

**III. Rejection of Claims 1-4, 6, 8-10, 20, 22 and 23 Under 35 U.S.C. §103(a)**

Claims 1-4, 6, 8-10, 22 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,407,292 to Edrich ("Edrich") in view of U.S. Patent No. 6,777,684 to Volkov, et al. ("Volkov"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

As described above, claims 1, 10, and 19-22 have been amended to present the rejected claims in better form for consideration on Appeal, as set forth in 37 CFR 1.116(b)(2). Representative for Applicant maintains the arguments set forth in the Response to the Office Action dated August 3, 2009, filed December 29, 2009 (hereinafter "Previous Response"). Specifically, for the same reasons described in the Previous Response, Representative for Applicant respectfully submits that neither Edrich nor Volkov teach or suggest claim 1 to one of ordinary skill in the art.

In the Office Action, the Examiner contends that the interpretation of "defined sensitivity profile" is "itself so broad that it fails to set forth any substantive limitation for the term; 'its general form' could be interpreted to mean anything including the mere knowledge that the profile is known to exist at all," (Office Action, pages 8-9). Representative for Applicant respectfully disagrees. The "general form" that is recited in claim 1 with respect to the sensitivity profile is recited as "defined", and thus *a-priori* known. Representative for Applicant respectfully submits that a "general form" is a term of sufficient specificity to encompass more than just existence. "Form" is defined as "external appearance of a clearly defined area, as distinguished from color or material; configuration: *a triangular form*," or as "the shape of a thing or person," (form. (n.d.). *Dictionary.com Unabridged*. Retrieved May 24, 2010, from Dictionary.com website: <http://dictionary.reference.com/browse/form>.). These definitions clearly establish that "general form" is with reference to the shape, appearance, and/or configuration of the sensitivity profile, and thus more than its mere existence. In addition, such "general form" is recited as "defined", and thus *a-priori* known, based on plain meaning definition and as supported by the Specification. Specifically, "defined" is the past tense of the word "define", which means "to state or set forth the meaning of, to explain or identify the nature

or essential qualities of, or to fix or lay down definitely; specify distinctly (defined. (n.d.). *Dictionary.com Unabridged*. Retrieved May 24, 2010, from Dictionary.com website: <http://dictionary.reference.com/browse/defined>). Thus, a plain meaning interpretation of "defined" is the meaning, the nature, and/or the specification was already set forth. This is further supported in the Specification, as also provided in the Previous Response, which states that "the sensitivity profile is defined in that its general form is known along the whole of the collection path," (Present Application, Paragraph 8).

The Examiner also responds to the specific distinctions between claim 1 and the teachings of Edrich merely by dismissing the arguments based on the Court decision in *In re Van Geuns* (Office Action, page 9). However, the Examiner fails to actually address the specific technical and arguments that were made to demonstrate the differences between the teachings of Edrich and claim 1 based on *exemplary* language that is supportive of the language of claim 1. Thus, Representative for Applicant respectfully maintains the arguments set forth in the Previous Response to demonstrate that Edrich fails to teach or suggest the elements of claim 1.

The Examiner also responds to the argument set forth in the Previous Response that Volkov fails to disclose means for isolating (*e.g.*, quasi-optical isolator) by stating that "focusing of a radiation signal, by definition, constitutes isolation," (Office Action, page 9). Representative for Applicant respectfully disagrees, and respectfully submits that the Examiner has provided a definition for a "means for isolating" as set forth in claim 1, and for a quasi-optical isolator, that is contrary to that which is disclosed in the Specification, in violation of 35 U.S.C. §112, sixth paragraph, and contrary to plain meaning.

The Federal Circuit Court has decided that 35 U.S.C. §112, sixth paragraph, states that a claim limitation expressed in means-plus-function language "shall be construed to cover the corresponding structure described in the Specification and equivalents thereof," and that "[i]f one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language." *In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) (in banc). The Specification clearly sets forth what is meant by the recited "means for isolating", such as the quasi-optical isolator described by FIG. 3 (Present

Application, FIG. 3; Paragraphs 18 and 42-45). Nowhere does the Present Application say that the "means for isolating" can be considered a lens. Representative for Applicant thus respectfully submits that for the Examiner to assert that a lens corresponds to the claimed "means for isolating", the Examiner is applying the past, and no longer valid, practice of applying the broadest reasonable interpretation with respect to prior art while disregarding the structure disclosed in Specification (MPEP, 2181).

In addition, for a number of reasons, a lens cannot reasonably be considered an equivalent of a quasi-optical isolator, such as disclosed in the Present Application. As well known in the art, focusing radiation does not "isolate it", but in fact does quite the opposite by concentrating it at a focal point. There is no indication that by focusing radiation that it would be isolated from any other radiation or external factors. Furthermore, the Examiner has failed to adequately demonstrate how a lens, as taught by Volkov, can act to isolate radiation by being placed in the collection path of the claimed imager for preventing signal leakage being emitted from the detector towards the patient's body, as recited in claim 1. The Examiner asserts that the lens of Volkov acts as an isolator by channeling the "leakage" radiation toward the imaging plane (Office Action, page 9). However, such an assertion fails to sufficiently describe how the lens of Volkov can be incorporated into the imager of claim 1. Specifically, claim 1 describes that the detector receives the radiation that is collected by the collector, and would thus correspond to a location of an imaging plane. However, the means for isolating recited in claim 1 is described as isolating radiation that is emitted from the detector. Therefore, the Examiner's assertion that the lens of Volkov acts as an isolator by channeling the "leakage" radiation toward the imaging plane is technically incorrect with respect to the arrangement of elements recited in claim 1, as leakage would not be "channeled" to the detector, and thus the imaging plane, of the imager recited in claim 1.

As also known in the art, an optical or quasi-optical isolator, such as disclosed in the Present Application, acts as an optical or quasi-optical diode, in that it allows radiation to pass through in one direction and prevents the passage of radiation in the opposite direction. See, e.g., <http://www.electronics-manufacturers.com/info/optoelectronics/optical-isolator.html>. This

is how it is possible for the quasi-optical isolator in claim 1 to be located in the collection path to prevent signal leakage from the detector while still allowing the collected radiation to be received at the detector. By contrast, a lens, such as that disclosed by Volkov, is a two-way device, allowing radiation to flow freely in either direction. Thus, the Examiner further fails to address how the lens of Volkov can be placed in the collection path recited in claim 1 to prevent signal leakage from being emitted to the patient's body from the detector, as recited in claim 1. For these reasons, a lens is not an equivalent of a quasi-optical isolator, such as disclosed in the Present Application.

For all of these reasons, Volkov fails to disclose a means for isolating, as recited in claim 1. Therefore, Edrich and Volkov fail to teach or suggest claim 1 to one of ordinary skill in the art. Withdrawal of the rejection of claim 1, as well as claims 2-23 which depend therefrom, is respectfully requested.

With regard to claim 6, the Examiner fails to address the merits of claim 6 based on the *previous* recitation of "such that" and based on a current and incorrect assertion of lack of antecedent basis. Representative for Applicant respectfully reminds the Examiner that the MPEP states that "[t]he examiner ordinarily should reject each claim on all valid grounds available," that, "[m]ajor technical rejections on grounds such as lack of proper disclosure, lack of enablement, serious indefiniteness and *res judicata* should be applied where appropriate even though there may be a seemingly sufficient rejection on the basis of prior art," and that "a rejection on the grounds of *res judicata*, no *prima facie* showing for reissue, new matter, or inoperativeness (not involving perpetual motion) should be accompanied by rejection on all other available grounds," (MPEP, §707.07(g)). Furthermore, the MPEP states that "[e]ach claim (i.e., each "invention")...must be evaluated on its own merits for compliance with all statutory requirements," (MPEP, §2107.02; emphasis added), and that "[t]he examiner's action will be complete as to all matters..." (MPEP, 37 CFR 1.104(2), §707.07).

Therefore, since the Office Action has not provided any other reasons for rejection, Representative for Applicant respectfully requests a statement that, pending the rejection of

claim 6 under 35 U.S.C. §112, second paragraph, claim 6 is otherwise allowed. Notice of the allowability of claim 6 is respectfully requested.

With regard to claim 9, the Examiner states that the term "'operable' does not require explicit teaching or disclosure by the reference; so long as the reference structure is capable of performing the function, it meets the claim," (Office Action, page 10). Representative for Applicant respectfully submits that the term "operable" sets forth functional language, and respectfully reminds the Examiner that functional limitations must be evaluated and considered, just like any other limitation of the claim, for what they fairly convey to a person of ordinary skill in the pertinent art in the context in which it is used (MPEP, §2173.05(g)). Thus, Representative for Applicant respectfully submits that the Examiner's statement that the term "'operable' does not require explicit teaching or disclosure by the reference; so long as the reference structure is capable of performing the function, it meets the claim," is insufficient to adequately support a rejection of claim 9.

Representative for Applicant further respectfully submits that Edrich fails to disclose that the reflector of Edrich is capable of being rotated, manually or otherwise, as asserted by the Examiner (Office Action, page 10). The Examiner fails to provide any citation to Edrich to support such a contention. As described in the Previous Response, Edrich describes X-Y raster scanning, and fails to provide any indication, teaching, or suggestion to one of ordinary skill in the art that the reflector of Edrich is capable of being rotated. Therefore, Representative for Applicant respectfully maintains that neither Edrich nor Volkov teach or suggest claim 9 to one of ordinary skill in the art. Withdrawal of the rejection of claim 9 is respectfully requested.

Representative for Applicant notes that the Examiner provides no rebuttal to the arguments set forth in the Previous Response with respect to claim 10. Representative for Applicant respectfully maintains the arguments set forth in the Previous Response, and respectfully requests withdrawal of the rejection of claim 10.

With regard to claim 20, the Examiner contends that "since [Volkov] describes collection of a Gaussian beam, which inherently travels such that there is at least one spot about which it is symmetrical, the references meet the claim," (Office Action, page 10). Representative for



Applicant respectfully disagrees, and again respectfully submits that the Examiner has not adequately addressed the language of the claim in rejecting claim 20. Specifically, claim 20 recites that the sensitivity profile is symmetrical *and reduced about the spot along the collection path* (emphasis added). The Examiner's contention fails to address the emphasized elements of claim 20 which are not disclosed in Volkov. In addition, the Examiner fails to identify how it would be obvious to one of ordinary skill in the art to combine the teachings of Volkov with Edrich, as set forth in the Previous Response. Therefore, neither Volkov nor Edrich teach or suggest claim 20 to one of ordinary skill in the art. Withdrawal of the rejection of claim 20 is respectfully requested.

**IV. Rejection of Claim 5 Under 35 U.S.C. §103(a)**

Claim 5 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Edrich and Volkov as applied to claim 1, and further in view of U.S. Patent No. 5,953,644 to Kool, et al. ("Kool"). Claim 5 depends from claim 1. As described above, neither Edrich nor Volkov, individually or in combination, teach or suggest claim 1, from which claim 5 depends, to one of ordinary skill in the art. The addition of Kool does not cure the deficiencies of Edrich and/or Volkov to teach or suggest claim 1. Therefore, Edrich, Volkov, and Kool, individually or in combination, do not teach or suggest claim 5 to one of ordinary skill in the art. Withdrawal of the rejection of claim 5 is respectfully requested.

**V. Rejection of Claim 13 Under 35 U.S.C. §103(a)**

Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Edrich and Volkov as applied to claim 1, and further in view of U.S. Patent No. 5,760,397 to Huguenin, et al. ("Huguenin '397"). With regard to claim 13, the Examiner asserts that the "suggestion that the reference range [of 30-300 GHz described in Huguenin '397] is analogous [to] a genus whereas the claimed range is analogous to a species is nothing more than a statement of opinion unsubstantiated by factual evident to prove that a skilled artisan would not be motivated to try to use a range of 90-100 GHz given a reference range of 30-300 GHz," (Office Action, page 10).

The Examiner provides no basis for the claim that such an argument set forth in the Previous Response is a statement of opinion. As described in the Previous Response, the frequency range recited in claim 13 (*i.e.*, spanning 10 GHz) is significantly narrower than the range disclosed in Huguenin '397 (*i.e.*, spanning 270 GHz), and should thus be considered a species of the broad genus disclosed in Huguenin '397. This statement by the Examiner also appears to completely disregard the established decisions by the Court set forth in the Previous Response, in that if the reference's disclosed range is so broad as to encompass a very large number of possible distinct compositions, this might present a situation analogous to the obviousness of a species when the prior art broadly discloses a genus. *In re Harris*, 409 F.3d 1339, 74 USPQ2d 1951 (Fed. Cir. 2005). Thus, the fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a *prima facie* case of obviousness. *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994). Therefore, because of the large difference in the frequency range between that described in Huguenin '397 and the claimed frequency range recited in claim 13, such a range described in Huguenin '397 does not render the claimed frequency range *prima facie* obvious.

Furthermore, in the Office Action, the Examiner also states that "the passage of the present specification reference in the arguments is not a clear, definitive statement that the range of 90-100 GHz produces a novel, unexpected result, as is required in showing that a feature is patentably advantageous over the prior art," (Office Action, page 10). Representative for Applicant respectfully disagrees. The Present Application provides numerous details about the failure of other frequency ranges described in prior art to adequately image subcutaneous body temperature, but that the 90-100 GHz band gives a reasonable compromise between penetration depth and spatial resolution (Present Application, Paragraphs 2-4 and 49). In the Office Action, the Examiner appears to disregard these statements for establishing that the claimed 90-100 GHz range is critical, as well as the decision by the Federal Circuit that criticality of a range can be used to rebut a *prima facie* case of obviousness based on an overlapping range. See, *e.g.*, *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). Therefore, Representative for Applicant respectfully maintains that Huguenin '397 fails to render the claimed frequency range

obvious to one of ordinary skill in the art, particularly based on the disclosure of Huguenin '397 to image concealed weapons beneath clothing, which is unrelated to imaging subcutaneous body temperature (Huguenin '397, col. 1, ll. 9-16). Accordingly, Edrich, Volkov, and Huguenin '397, individually or in combination, fail to teach or suggest claim 13 to one of ordinary skill in the art. Withdrawal of the rejection of claim 13 is respectfully requested.

**VI. Rejection of Claim 14, 15, 17 and 18 Under 35 U.S.C. §103(a)**

Claims 14, 15, 17 and 18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Edrich and Volkov as applied to claim 1, and further in view of U.S. Patent No. 5,047,783 to Huguenin, et al. ("Huguenin '783"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

With regard to claim 15, the Examiner asserts that "the recitation 'for emitting...' is nothing more than a recitation of intended use unsupported by a clear recitation of structure configured to produce such function, and therefore the limitation is not given patentable weight," (Office Action, page 10). Representative for Applicant respectfully submits that at least one calibration load for emitting millimeter wave radiation at a pre-determined intensity is not language of intended use, as contended by the Examiner, but is instead functional language. Specifically, claim 14 sets forth a manner as to how the calibration load operates, thus allowing the collector to be operable to direct said radiation to the detector to enable the imager to be calibrated, as recited in claim 14, and is not merely a statement of the environment or the application in which the calibration load is to be used. In other words, claim 14 describes that the emission of millimeter wave radiation as the pre-determined intensity is how the calibration load operates to allow the imager to be calibrated (*i.e.*, based on receiving the radiation), and thus describes how the calibration load *functions* to allow calibration of the imager. Thus, the described element of claim 14 is functional language, and not a statement of intended use, which is described in the MPEP as a statement of purpose and not given patentable weight in the context of the preamble (see MPEP, 2111.02). As described above with respect to claim 9, functional limitations must be evaluated and considered, just like any other limitation of the

claim, for what they fairly convey to a person of ordinary skill in the pertinent art in the context in which it is used (MPEP, §2173.05(g)).

In addition, the Examiner contends that "Applicant is attempting to improperly limit the Office's interpretation of 'calibration' to only that which is described in the specification, when in fact Applicant has failed to clearly redefine the term to the extent that a skilled artisan would be put on clear notice that the term can only be interpreted that way in the context of the present invention," (Office Action, page 10). Representative for Applicant respectfully disagrees, and respectfully submits that the definition of "calibration" as set forth in the Specification and in claim 14 is merely a plain meaning definition of the term as understood by one of ordinary skill in the art, and that the Examiner appears to be interpreting the definition of "calibration" in a manner that is contrary to such plain meaning by asserting that "noise cancellation", as taught in Huguenin '783, is equivalent to "calibration". Specifically, "calibration" is defined as "the act of checking or adjusting (by comparison with a standard) the accuracy of a measuring instrument," (<http://wordnetweb.princeton.edu/perl/webwn?s=calibration>). By contrast, Huguenin '783 provides an adequate definition of "noise cancellation", in which background noise is detected and cancelled (Huguenin '783, col. 2, ll. 8-46). However, such noise cancellation does not contemplate comparison with a *standard* to adjust the accuracy of the imager of Huguenin '783. By contrast, the pre-defined intensity of the millimeter wave radiation can be considered a standard for purposes of adjusting the accuracy of the claimed imager. Therefore, "calibration", both as described in the Specification and in claim 14, are a plain meaning definition as known in the art. The Examiner is invited to provide a definition that differs from that provided in the Present Application and recited in claim 14 to establish that the definition of "calibration" in the Present Application is contrary to that known in the art. Absent such a differing definition, Representative for Applicant respectfully maintains that Edrich, Volkov, and Huguenin '783, individually or in combination, fail to teach or suggest claim 14 to one of ordinary skill in the art. Withdrawal of the rejection of claim 14 is respectfully requested.

With regard to claim 15, the Examiner states that "[s]imilar rationale [as to claim 14] applies to Applicant's arguments regarding claim 15," (Office Action, page 10). Representative

for Applicant respectfully submits that claim 15 recites different elements than claim 14, and that the Examiner provides no rebuttal to the arguments set forth in the Previous Response with respect to claim 15. Representative for Applicant respectfully maintains the arguments set forth in the Previous Response, and respectfully requests withdrawal of the rejection of claim 15.

**VII. Rejection of Claims 16 and 19 Under 35 U.S.C. §103(a)**

Claims 16 and 19 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Edrich, Volkov and Huguenin as applied to claim 14, and further in view of U.S. Patent No. 5,231,404 to Gasiewski ("Gasiewski"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

With regard to claim 16, the Examiner contends that "[a] skilled artisan would readily recognize as a matter of common sense that, since Edrich and Volkov are directed towards imaging the body, any teaching of temperature provided by Gasiewski should also be interpreted in light of typical body temperatures, and as such would find it obvious to try to modify Edrich and Volkov with Gasiewski in the context of such body temperatures," (Office Action, page 11; citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007)). Representative for Applicant respectfully disagrees, and respectfully submits that the Examiner has provided no basis for the citation to *KSR*. As set forth in the Previous Response, Gasiewski discloses a spaceborne or airborne imaging system, which is a very different application of imaging from imaging subcutaneous body temperatures of a human patient, as recited in the claims of the Present Application. Thus, Representative for Applicant respectfully submits that there is no articulated reasoning with some rational underpinning to support the legal conclusion of obviousness for one of ordinary skill in the art to combine Gasiewski with Edrich and/or Volkov to achieve the combination of elements of claim 16, as required by *KSR*. *KSR*, 550 U.S. at 418. Thus, Representative for Applicant respectfully maintains that one of ordinary skill in the art would not find it obvious to implement the "hot" and "cold" loads of Gasiewski as two calibration loads having temperatures that straddle a range of subcutaneous body temperatures to be imaged, as recited in claim 16. Accordingly, Edrich, Volkov, Huguenin '783, and Gasiewski, individually

or in combination, do not teach or suggest claim 16 to one of ordinary skill in the art.

Withdrawal of the rejection of claim 16 is respectfully requested.

With respect to claim 19, the Examiner contends that "rotating a reflector along a central axis, and scanning along a 'conical swath' both satisfy the limitation of scanning such that the collection path has a shape of a circumference of a cylinder, wherein the cylinder may be irregular or regular in its lengthwise diameter," (Office Action, page 11). Representative for Applicant respectfully disagrees, and respectfully submits that the scanning described in Gasiewski is very different from scanning in a collection path that forms a notional cylinder. Gasiewski fails to disclose rotating a reflector *along* a central axis, but instead discloses that the reflector rotates in conical swaths from a fixed point (*i.e.*, the end-point of the central axis of a cone), such that the radiation is along rays that extend axially along the exterior of the cone (Gasiewski, col. 7, ll. 22-24; col. 9, ll. 25-28; col. 11, ll. 22-40). Therefore, the scanning described in Gasiewski is not in the form of a circumference of a notional cylinder at each of a plurality of indexed steps, as recited in claim 19, because there is no notional cylinder, no circumference, and no indexed steps in the scan described in Gasiewski.

Furthermore, the scanning device of Gasiewski is based on an arrangement of a motor and a parabolic antenna for imaging targets in the context of radio astronomy, and thus scanning very distant targets (Gasiewski, col. 2, ll. 10-21). For the scanning device of Gasiewski to be modified in the manner recited in claim 19, such that the scan is in the form of a circumference of a notional cylinder at each of a plurality of indexed steps, as recited in claim 19, with or without the teachings of Edrich and/or Volkov, would render the equipment of Gasiewski unsatisfactory for its intended purpose. As decided by the Federal Circuit Court, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984). Therefore, Representative for Applicant respectfully maintains that Edrich, Volkov, Huguenin '783, and Gasiewski, individually or in combination, do not teach or suggest claim 19 to one of ordinary skill in the art. Withdrawal of the rejection of claim 19 is respectfully requested.

**CONCLUSION**

In view of the foregoing remarks, Applicant respectfully submits that the present application is in condition for allowance. Applicant respectfully requests reconsideration of this application and that the application be passed to issue.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

Date 26 May 2010

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